

REMARKS

In section 2a of the Office Action, the Examiner rejected claims 31-47 under 35 U.S.C. §103(a) as being unpatentable over the Davies patent in view of the Ben-Ze'ev patent.

Applicants' Argument

The Davies patent shows an adaptive remote controller 100 in Figure 1 that sends a control signal 110 to a target device 120 so that the target device 120 performs a function. The remote controller 100 may be configured to send the control signal 110 to any number of target devices 120.

In Figure 2, the Davies patent shows a remote controller 200 that comprises a user control input 210, a detector 220, and a user interface 230. The user control input 210 receives a user input and issues a control signal to a target device. The detector 220 detects if the remote controller 200 is within a target device feedback range. The user interface 230 provides feedback to the user as to whether the control signal was successfully sent to and executed by the target device. The user interface 230 provides feedback only if the

remote controller is out of the target device feedback range.

Figure 3 of the Davies patent shows an alternative remote controller 300 that comprises a user control input 310, a detector 320, and a user interface 330 as before. The user control input 310 also comprises an infrared system 340, a radio frequency system 350, and a toggling mechanism 360. The infrared system 340 sends a signal to the target device when the remote controller 300 is within the target device feedback range. The radio frequency system 350 sends radio frequency signals to the target device when the remote controller 300 is not within the target device feedback range. The detector 320 determines whether the remote controller 310 is within the target device feedback range and activates the toggling mechanism 360 to switch between the infrared system 340 and the radio frequency system 350 as necessary.

An example of an application of the remote controller 300 is a user attempting to turn on a television set. The remote controller 300 transmits an infrared signal to the television set when the user is holding the remote controller 300 in the same room as the television set. Feedback as to the successful execution

of a function in response to the transmitted signal is provided by the television set (because the user can see and/or hear the television set).

However, the remote controller 300 transmits a radio frequency signal when the user is in a room that is different than the room where the television set is located. Feedback relevant to the execution of a particular function corresponding to the transmitted signal is received by the remote controller via radio frequency communication and is provided to the user of the remote controller 300.

The target device feedback range may be an unobstructed line of sight between the remote controller and the target device, or the target device feedback range may be an audible hearing distance between the remote controller and the target device, or the target device feedback range may be a definite distance of ten meters.

Figure 4 of the Davies patent shows a flow diagram of a process of transmitting a signal from a remote controller to a target device. At 410, a signal is transmitted from a remote controller to a target device to perform a function on the target device. At 420, a determination is made as to whether the remote

controller is within a target device feedback range. At 430, the remote controller provides feedback as to whether the function was executed by the target device if the remote controller is not within the target device feedback range.

Figure 5 of the Davies patent shows an alternative process of transmitting a signal from a remote controller to a target device. At 510, a detector in the remote controller determines whether the remote controller is within a target device feedback range. If the remote controller is not within the target device feedback range, a radio frequency signal is transmitted from the remote controller at 520 to the target device. At 525, the remote controller provides feedback as to whether the control signal was received by the target device and the function was executed by the target device. At 535, the target device also provides feedback.

If the remote controller is within the target device feedback range, an infrared control signal is transmitted at 530 from the remote controller to the target device. At 535, the target device provides feedback.

Switching between infrared and radio frequency signals this may be manually performed by the user or may be automatically performed.

The Ben-Ze'ev patent discloses a remote controller 1 that bi-directionally communicates with a plurality of electrical or electronic appliances in its vicinity. Examples of these electrical or electronic appliances are a first TV 2, a light bulb 3, an oven 4, a kettle 5, a refrigerator 6, a stereo system 7, a stove 8, a second TV 9, and a chandelier 11.

Figure 2 shows an additional part that is added to each of these appliances. This part includes a non-directional antenna 21, a receiver 22, a transmitter 26, a small database 24, and a processing unit 23. The small database 24 in the appliance contains set-up data that can be transmitted by the transmitter 26 to the remote controller providing it all the information it needs in order to control the appliance.

Figure 3 shows the remote controller 1. The remote controller 1 comprises a non-directional antenna 31, a receiver 32, a transmitter 30, a processing unit 33, an internal RAM 34 for storing set-up data of a plurality of appliances, a display 35, and a loudspeaker 40.

The system 20 preferably operates in one of the Radio Frequency (RF) communication protocols.

The remote controller 1 periodically interrogates the existence of all appliances in its vicinity.

As shown in Figure 6, the remote controller 1, upon receipt of an identification signal from an appliance, displays the description of that appliance on its screen. If an identification signal from a device is not received within a predetermined period, the description of that appliance is removed from the screen. In this fashion, the list of appliances in the vicinity of the user is continuously updated, even when the user moves from one location to another.

Upon receipt of the identification signals from all appliances in its vicinity, the remote controller displays on its screen the descriptions of all appliances in its vicinity. At that stage, the user who holds the remote controller can decide which of the appliances appearing on its screen he desires to control by pressing the appropriate description.

The remote controller 1 can also acquire the appliance current status.

Independent claim 31 is directed to a television control system comprising a host device and a plurality of dispersed televisions. The host device has a host processor, a host receiver, and a host transmitter. The host processor controls the host transmitter to transmit command signals, and the host processor processes confirmation signals received by the host receiver. Each of the plurality of dispersed televisions has a television processor, a television receiver, and a television transmitter. Each television processor processes the command signals received by a corresponding television receiver, and each television processor controls a corresponding television transmitter to transmit the confirmation signals upon performance of functions commanded by the command signals. The host processor determines which televisions do not transmit the confirmation signals.

The Examiner recognizes that the Davies patent fails to disclose a controller that determines which of a plurality of televisions fails to transmit a confirmation signal.

Therefore, the Examiner cites the Ben-Ze'ev patent, which shows a remote controller that controls multiple devices including first and second televisions,

and argues (i) that it would have been obvious to modify the remote controller disclosed in the Davies patent to allow a user to control multiple televisions and to receive feedback from the multiple televisions that the televisions performed the requested control function, and (ii) that it would have been obvious to also modify the remote controller disclosed in the Davies patent to allow the remote controller to ascertain which of the multiple televisions fails to provide confirmation signals.

However, in making this argument, the Examiner failed to point out any motivation available to the person of ordinary skill in the art that would have led that person to modify the remote controller disclosed in the Davies patent so that this remote controller could ascertain which of a plurality of televisions fail to return confirmation signals.

Accordingly, the Examiner has not established a *prima facie* case for obviousness. Therefore, independent claim 31 is patentable over the Davies patent in view of the Ben-Ze'ev patent.

Moreover, the Davies patent and the Ben-Ze'ev patent do not suggest a motivation that would have led the person of ordinary skill in the art to modify the remote controller disclosed in the Davies patent so that

this remote controller could ascertain which of a plurality of televisions fail to return confirmation signals.

Instead, the Davies patent merely discloses that a television provides feedback to a remote controller indicating that the television has executed a function, but the television provides the remote controller no way to identify the television. Therefore, the Davies patent cannot suggest a remote controller that can receive feedback from the multiple televisions and that can determine which of the televisions fails to provide feedback.

The Ben-Ze'ev patent discloses that first and second televisions can be remotely controlled by the same remote controller. However, the Ben-Ze'ev patent does not establish a need either for transmitting confirmation signals from the plural televisions (or, for that matter, from a single television) or for determining which of the plural televisions fails to transmit a confirmation signal. Therefore, the Ben-Ze'ev patent cannot suggest determining which of plural televisions fails to transmit a confirmation signal

Accordingly, neither the Davies patent nor the Ben-Ze'ev patent suggests to one of ordinary skill a

remote controller that receives confirmation signals from multiple televisions and that is capable of determining which of the multiple televisions fails to provide a confirmation signal. Therefore, neither the Davies patent nor the Ben-Ze'ev patent suggests the invention of independent claim 31 to one of ordinary skill in the art.

Consequently, independent claim 31 is not unpatentable over the Davies patent in view of the Ben-Ze'ev patent.

Independent claim 42 is directed to a television signal transmission method comprising transmitting a command signal from a host device to each of a plurality of dispersed televisions directing the televisions to perform a function, receiving at the host device confirmation signals from the plurality of televisions, and determining at the host device which of the televisions fails to transmit a confirmation signal.

As discussed above, the Examiner has failed to establish a *prima facie* case of obviousness relative to receiving, at a host device, confirmation signals from a plurality of televisions, and determining at the host device which of the televisions fails to transmit a confirmation signal.

As also discussed above, neither the Davies patent nor the Ben-Ze'ev patent discloses or suggests determining at a host device which of the televisions fails to transmit a confirmation signal. Accordingly, the combination of the Davies patent and the Ben-Ze'ev patent does not suggest the invention of independent claim 42 to one of ordinary skill in the art.

Therefore, for both of these reasons, independent claim 42 is patentable over the Davies patent in view of the Ben-Ze'ev patent.

Examiner's Response

The Examiner counters by arguing that the only difference between the claims and the Davies patent is that the claims recite the control of multiple televisions whereas the Davies patent shows the remote control of only one television. Therefore, the Examiner asserts that the Ben-Ze'ev patent discloses the remote control of multiple televisions, and argues that, since the Ben-Ze'ev patent discloses that multiple televisions can be remotely controlled, it would have been obvious to use the remote control disclosed in the Davies patent for the remote control of multiple televisions. The Examiner concludes by arguing essentially that, since the Davies

patent discloses receiving confirmation from one television, and since it would have been obvious according to the Examiner to use the remote control disclosed in the Davies patent to control multiple televisions, it would have also been obvious in this situation for the remote control disclosed in the Davies patent to receive confirmations from the multiple televisions.

Finally, if this combination is assumed, the Examiner seems to be of the belief that, if no confirmation is received by the remote control from a particular television, the remote control informs the user that no confirmation has been received from that television.

Applicants' Rebuttal

There are at least two problems with the Examiner's response.

First, independent claims 31 and 42 recite that the host processor/device determines which of multiple televisions fails to transmit a confirmation signal.

By contrast, the Davies patent does not disclose or suggest that the remote control determines when no confirmation is received. The user might

determine that no confirmation has been received by the remote control when the remote control provides no feedback regarding the confirmation. However, the remote control does not itself make this determination as required by the claims.

Similarly, the remote control disclosed in the Ben-Ze'ev patent fails to make this determination as required by the claims.

Accordingly, even if the Davies patent and the Ben-Ze'ev patent can be combined as suggested by the Examiner, the resulting combination would not result in the inventions recited in independent claim 31 and 42.

Therefore, for this reason, independent claims 31 and 42 are patentable over the Davies patent in view of the Ben-Ze'ev patent.

Second, as discussed above, the Examiner has failed to point out any motivation available to the person of ordinary skill in the art that would have led that person to modify the remote control disclosed in the Davies patent so that this remote control itself determines which of a plurality of televisions fails to return confirmation signals.

The Examiner seems to believe that this determination is a natural result of combining the Davies

patent and the Ben-Ze'ev patent. However, as pointed out above, neither reference discloses a remote control that itself makes the determination.

Accordingly, because the Examiner has failed to point out the motivation discussed above, the Examiner has not established a *prima facie* case for obviousness. Therefore, for this reason also, independent claims 31 and 42 are patentable over the Davies patent in view of the Ben-Ze'ev patent.

CONCLUSION

In view of the above, it is clear that the claims of the present application patentably distinguish over the art applied by the Examiner. Accordingly, allowance of these claims and issuance of the above captioned patent application are respectfully requested.

Respectfully submitted,

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